occurred. The authors attempt to subdivide, by looking at such matters as marriages of mixed religion and Catholics of various ethnic origins and different forms of schooling; in all of these some differentials may exist.

The effect of socio-economic status upon fertility had already been shown as much less potent than that of religion; it now appears also to vary in direction according to which religion is being observed. Social and geographical mobility appear to bear little relation at all to fertility. The book makes an interesting point about the negative correlation between age at marriage and number of children; this is held to arise not (or only a little) from the number of children desired, but from the weaker fecundity and greater planning success of the oldermarried couples. The correlation of family size between successive generations is shown to be a secondary effect of religion—which does not in any way mitigate its power (if other things remain the same) to raise the birth rate in the long run, as the more fertile groups increasingly outnumber the less fertile.

P. R. C.

Coale, Ansley J. and Zelnik, Melvin. New Estimates of Fertility and Population in the United States. Princeton, N.J. 1963. Princeton University Press (London, Oxford University Press). Pp. xvi + 186. Price 32s. in U.K. only. WITH THE EXCEPTION of one short section. this is a book for the technical specialist. The authors' work began with an analysis of misstatements of age at the census. Such misstatements take various forms, one of the most evident of which is a rounding of the recorded age to the nearest 0 or 5; when the numbers of persons enumerated at successive ages are charted, for instance, as a series of points of a proportionate height above a level straight line, a line joining the points will then be jagged and show peaks at every fifth age. The degree of departure from the truth can be estimated in a variety of ways, one of which is to compare the numbers enumerated at each single age with the average of the numbers enumerated at the ten adjacent ages (five on each side).

Measurement of errors in the statement of age is laborious and complicated by the allow-

ances that must be made for wars, epidemics and fluctuations in the birth rate. It must be made separately for each sex and for each successive census, as the degree of error varies from one to the other. The painstaking labours of the authors, described in considerable detail in the pages of this book, were however rewarded with the discovery that the trends of the errors over a period of time were reasonably uniform—indeed approximately linear. Such a discovery provided an additional check on the work and encouraged the use of greater refinements in the analysis.

Spurred on by their good fortune, the authors proceeded to make fresh estimates of the numbers of births in the United States for the period 1855-1960, during much of which the registration figures were wholly inadequate except in specified States. These estimates are probably better than those resulting from earlier attempts by others; they are certainly more specific. Chapters 3 and 4 discourse on the figures obtained and compare them with the corresponding work of others and with the data for comparable European countries. This part of the book is of general interest and occupies about twenty pages. The remainder consists mainly of clearly detailed accounts of the methods adopted, with full illustrative tables and charts, and will be of much significance to those concerned with demographic techniques. Chapter 6, which discusses the relationship between the birth rate and measures of total fertility, is of particular analytical interest.

P. R. C.

Hauser, Philip M. (Editor). The Population Dilemma. Columbia, N.J., 1963. The American Assembly. Pp. iv + 188. Price \$1.95.

THIS PAPERBACK VOLUME consists of a collection of essays by different well-known American demographers, preceded by the Editor's Introduction. They formed the "background reading" for the meeting of the American Assembly in 1963, at which discussions were held and agreement was reached upon certain issues. The findings and recommendations for national policy are contained in a five-page statement printed at the back of the volume.

The essays deal respectively with World

Population Growth (Harold F. Dorn), Population Growth in Underdeveloped Areas (Irene B. Taeuber), Population and Economic Development (Ansley J. Coale), Population Growth in the United States (Donald J. Bogue), Resources in the United States and the World (Joseph L. Fisher and Neal Potter), The Problem of Population Control (Frank W. Notestein, Dudley Kirk and Sheldon Segal), and Issues of Population Policy (Frank Lorimer).

Mr. Donald Bogue is outspoken in his commentary upon the rapid rate of population growth in the United States, and puts in a welcome plea for an immediate programme of re-education in order to bring about a change of attitude in that country towards the size of the family. In his summing-up, however, Mr. Frank Lorimer is less committed on the subject. Messrs. Fisher and Potter assemble a useful collection of data on resources and attempt a projection of them to the end of the present century; on this basis they are able to take an encouraging view of the immediate prospects. at least so far as highly developed countries are concerned. The article by three authors on population control presents a useful summary of present-day problems and prospects and this too ends with a confident note on current trends and hopes. The writers of the other essays do not commit themselves so far as to be optimistic or pessimistic but present a good. clear summary of the facts: designed for the purposes of the Conference, their papers do not seek to supply any new methods of analysis or the results of fresh research.

These differences of outlook are characteristic of most symposia; while refreshing to the Conference participants they do not make for an entirely coherent work when published in book form. Nevertheless, in the present instance it is possible at least to know what were the views reached by the eighty or so assembled delegates—representing many important institutions in American life. They agreed—to summarize the thirty or so decisions and recommendations reached—that present rates of population growth around the world cannot be maintained indefinitely; that birth rates and family size must be reduced; that the United Nations should do more about it; that U.S.

aid to emergent countries should be redesigned so as to help more with population problems; and that in the United States efforts should be made to cultivate "a sense of responsibility concerning marriage and parenthood" and that a national Commission should be set up to inform the Government and the people of the nature and implications of population problems.

Members of the Eugenics Society will cordially welcome these conclusions—especially the one printed in italics—and find much in them with which they can agree unreservedly. Is the way becoming more open in the United States for the development of eugenic policies? It would seem so, but it must be confessed that none of the writers of this volume has dealt directly with the eugenic question or the important issues it raises.

P. R. C.

Osborn, Fairfield (Editor). Our Crowded Planet: Essays on the Pressures of Population. London, 1963. Allen and Unwin. Pp. 192. Price 21s.

FAIRFIELD OSBORN HAS rendered a real service by gathering together special contributions from a score of eminent people. He has done so "from the conviction that the inordinately rapid increase of populations... is the most essential problem which faces everybody everywhere." The cognoscenti of to-day-and happily their number does at last quite clearly increase—will perhaps not learn so much that is new to them. Those coming new to the wider recognition of the problem will gain much perspective and the realization that historians, economists and others far beyond the biologists have at last taken alarm. The wise observer of socio-biological phenomena includes the interplay of religion and reproduction within his spectrum of interest. He will find both interest and sadness in the contribution from a leading Roman Catholic fighting a rearguard action against the pressures of reality. The negativeness of that attitude is in such marked contrast with the humanity of Dr. John Rock, the notable Roman Catholic gynaecologist, who reduces the religio-philosophical problem of his Church to the quality of the motivation in each act of contraception.

There is no space here for comment upon the